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ABSTRACT

This report presents information about the performance of the 1994 graduating seniors nationwide who took the ACT Assessment as juniors or seniors. Average scores are on the scale for the Enhanced ACT Assessment, which was introduced in 1989. It must be recalled that ACT-tested seniors may not be representative of the total population of graduating seniors. Results are given according to type of high school program completed. They demonstrate that students who prepare by taking a core high school program score consistently higher than those who do not. Regardless of ethnic group, the average composite score for those who complete a core program of 4 or more years of English, 3 or more years of mathematics, 3 or more years of social studies, and 3 or more years of natural science, is higher than for those who do not take these courses. Analysis of score trends reveals little change in recent years, with the average composite score improving 0.2 of a scale score over 5 years. Seven tables present test results and illustrate some trends. (SLD)

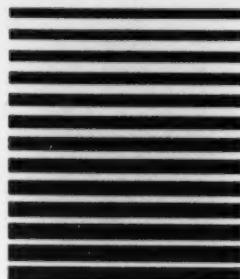
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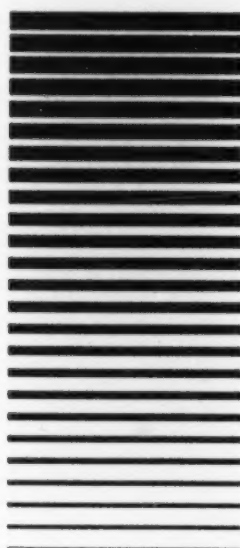
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1994 ACT ASSESSMENT RESULTS

SUMMARY REPORT



NATIONAL

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ACT ASSESSMENT RESULTS

National 1994

This report provides information about the performance of 1994 graduating seniors nationwide who took the ACT Assessment as juniors or seniors. As you review and interpret the information it provides, please keep the following in mind:

- All the average scores in this report are on the scale for the Enhanced ACT Assessment, which was introduced in October 1989.
- ACT-tested seniors may not be representative of the total population of graduating seniors.
- This report provides selected information about the nation's ACT-tested graduating seniors. For more details, please refer to the 1994 national High School Profile Report.

Average ACT Scores**National
1994**

To help policy-makers gain a better perspective on the association between coursework taken in high school and performance on the ACT Assessment, this report provides information about the graduating class according to type of high school program completed. Average scores are reported for 1994 graduating seniors who elected to complete core high school coursework and for those who did not.

The academic preparation a student receives in high school correlates with success in college. ACT research indicates that students who prepare academically by taking a core high school program consistently score higher on the ACT Assessment than those who do not. These relationships generally hold true across ability levels, ethnic groups, and family income levels. These same students also earn better grades in college. These facts underscore the value of a strong basic program of study in high school.

Occasionally these relationships among type of high school program, performance on the ACT Assessment, and earned grades do not hold. Such differences may be accounted for in several ways, including shifting proportions of students completing core versus less than core and variations in ability levels among subgroups of students electing to take core courses.

Types of High School Program

Core or More

A **core or more** program is defined as a typical college preparatory program including:

•**English (four years or more)**

One year credit each for English 9, English 10, English 11, English 12

•**Mathematics (three years or more)**

One year credit each for Algebra 1, Algebra II, Geometry

One-half year credit each for Trigonometry, Calculus (not Pre-Calculus), other Math courses beyond Algebra II, Computer Math/Computer Science

•**Social Studies (three years or more)**

One year credit each for American History, World History, American Government

One-half year credit each for Economics, Geography, Psychology, other History (European, State, etc.)

•**Natural Sciences (three years or more)**

One year credit each for General/Physical/Earth Science, Biology, Chemistry, Physics

Less Than Core

A **less than core** program refers to any high school program consisting of fewer courses than those included in core or more.

Average scores in English, Mathematics, Reading, Science Reasoning, and Composite for 1994 seniors who completed a core curriculum and those who did not are shown in Tables 1 and 2. In general, students who complete core coursework tend to earn higher average scores than students who do not complete core coursework. As Table 2 indicates, this association holds true across racial-ethnic groups. Table 3 shows that regardless of ethnic background, the average Composite score for students who completed core coursework has been consistently higher over the past five years than the average Composite scores of those who did not.

Table 1
Average ACT Scores
By Type of High School Program

Reference Group	Core or More					Less Than Core				
	E	M	R	SR	C	E	M	R	SR	C
National	21.5	21.5	22.5	22.1	22.0	18.6	18.3	19.6	19.5	19.1

Table 2
Average ACT Scores
By Type of High School Program and Racial-Ethnic Group

National Reference Group	Core or More					Less Than Core				
	E	M	R	SR	C	E	M	R	SR	C
Afro-Amer/Black	17.5	17.8	18.1	18.2	18.0	15.1	15.7	16.0	16.6	16.0
Amer Ind/Alas. Nat.	19.2	19.6	20.4	20.4	20.0	16.4	16.7	17.7	18.1	17.3
Caucasian	22.2	22.0	23.2	22.7	22.6	19.4	18.7	20.4	20.1	19.8
Mex Amer/Chi.	18.8	19.7	19.8	19.8	19.6	16.1	16.9	17.3	17.7	17.1
Asian Amer/Pac.	21.3	23.8	22.3	22.2	22.5	18.4	21.1	19.4	20.0	19.9
P.R./Cuban/Oth.	19.9	20.4	20.8	20.4	20.5	16.6	17.3	17.8	18.0	17.6

Table 3
Trends in Average ACT Composite Scores Across Five Years
By Type of High School Program and Racial-Ethnic Group

National Reference Group	Core or More		Less Than Core	
	N	Composite	N	Composite
All Graduates				
1990	370379	22.3	394540	19.1
1991	387404	22.1	374976	19.1
1992	419073	22.0	372166	19.1
1993	453064	22.0	374256	19.1
1994	478885	22.0	359974	19.1
Afro-American/Black				
1990	29814	18.2	40127	16.1
1991	32468	18.2	39729	16.1
1992	35166	18.1	39465	16.1
1993	38893	18.1	40620	16.1
1994	41533	18.0	39275	16.0
American Indian/Alaskan Native				
1990	3163	19.9	5208	17.1
1991	3727	19.8	5098	17.2
1992	4026	19.8	5255	17.1
1993	4537	20.0	5390	17.3
1994	4995	20.0	5533	17.3
Caucasian				
1990	290929	22.8	301253	19.7
1991	299557	22.7	282708	19.7
1992	320849	22.6	277995	19.7
1993	342884	22.6	275294	19.8
1994	356512	22.6	260155	19.8
Mexican American/Chicano				
1990	9770	19.9	12349	17.2
1991	11143	19.9	12555	17.2
1992	12787	19.8	13185	17.1
1993	13764	19.8	13753	17.2
1994	15411	19.6	13918	17.1
Asian American/Pacific Islander				
1990	11734	22.8	6714	20.0
1991	13401	22.6	7173	19.8
1992	14945	22.5	7336	19.8
1993	16600	22.5	7649	19.8
1994	17686	22.5	7952	19.9
Puerto Rican/Cuban/Other Hispanic				
1990	5250	20.9	4886	17.6
1991	5991	20.7	5006	17.6
1992	7026	20.7	5608	17.6
1993	7693	20.5	5799	17.6
1994	8685	20.5	5950	17.6

The data in Table 4 confirm that the relationship between average ACT scores and patterns of high school coursework is consistent across racial-ethnic groups **and** annual family income levels within those groups.

Table 4
Average ACT Composite Scores
By Type of High School Program, Racial-Ethnic Group
And Annual Family Income

1994 National Reference Group	Annual Family Income					
	Less than \$18,000		\$18,000-\$35,999		\$36,000 or more	
	N	Composite	N	Composite	N	Composite
All Graduates						
Total Group	135190	18.5	236019	20.3	403980	21.9
Core	63052	19.8	125827	21.5	249176	22.9
Less than Core	69764	17.3	107151	18.9	150495	20.2
Afro-American/Black						
Total Group	33495	16.1	25103	17.3	17557	18.5
Core	15450	17.1	13121	18.1	10309	19.4
Less than Core	17687	15.4	11663	16.3	7027	17.2
American Indian/Alaskan Native						
Total Group	3482	17.0	3531	18.5	3316	20.1
Core	1266	18.5	1676	19.8	1766	21.3
Less than Core	1965	16.2	1740	17.4	1477	18.7
Caucasian						
Total Group	69091	20.0	174189	20.8	340763	22.0
Core	31936	21.5	92545	22.1	210169	23.1
Less than Core	36235	18.7	79699	19.4	127465	20.4
Mexican American/Chicano						
Total Group	9840	17.2	9954	18.5	8112	20.0
Core	4674	18.4	5214	19.5	4738	21.1
Less than Core	5102	16.1	4669	17.3	3304	18.5
Asian American/Pacific Islander						
Total Group	6063	18.8	7020	21.1	11450	23.6
Core	3650	19.7	4740	21.8	8256	24.2
Less than Core	2285	17.3	2158	19.5	2978	22.0
Puerto Rican/Cuban/Other Hispanic						
Total Group	4316	17.4	4682	19.1	5013	21.1
Core	2118	18.7	2714	20.1	3258	22.0
Less than Core	2028	16.2	1837	17.7	1621	19.2

Each year ACT collects freshman course grades from hundreds of colleges and universities. During 1992-94 ACT analyzed the grades obtained from dozens of different colleges and universities, in the specific courses listed below. Research has shown ACT-tested graduates typically have at least a 50 percent likelihood of doing at least B-grade work in the courses listed if they obtain the identified ACT score value or higher. The columns at the right of the table describe the percentage of ACT-tested graduates that earned a score at or above the typical cutoff score. For example, of those students who had core or more coursework, 77% had an English score at or above 18.

Table 5
Summary of Course Placement
Cutoff Scores

Course Type	ACT Assessment Test Variable	Typical Cutoff Score	Percent At or Above The Typical Cutoff Score	
			Those with Core Coursework	Those With Less than Core Coursework
English				
Standard Composition	English	18	77	55
Advanced Composition	English	21	57	34
Literature	English	21	57	34
Mathematics				
Elementary Algebra	Mathematics	19	70	39
Intermediate Algebra	Mathematics	22	46	20
College Algebra	Mathematics	23	40	16
Calculus	Mathematics	26	21	7
Science				
Chemistry	Science Reasoning	23	43	22
Physics	Science Reasoning	20	71	46

Academic success at specific colleges/universities depends on many factors, including the selectivity of the institution, and the grading practices at the institution. Based on the guidelines mentioned above, the percentage of ACT-tested students who would likely do successful work in the identified courses is higher for those who completed the recommended core coursework. Students who earn the relevant scores below those listed may not be ready for these entry level courses, they may need additional academic preparation to succeed in such courses.

Table 6 compares percentages of students selecting the most commonly chosen majors in 1990, 1992, and 1994. Patterns of interest in these majors have been consistent during this period; as interest in Business has declined, interest in Health majors has increased.

Table 6
Percentages Choosing Selected Majors
By Graduation Year and Gender

National Reference Group	Men	Women	Total
Business			
1990	20	20	20
1992	16	16	16
1994	14	13	13
Computer/Information Sciences			
1990	4	2	3
1992	3	2	2
1994	3	1	2
Education			
1990	4	12	8
1992	5	12	9
1994	5	12	9
Engineering			
1990	18	3	10
1992	19	3	10
1994	17	3	9
Health Professions			
1990	8	17	13
1992	11	22	17
1994	13	26	20

Table 7 provides average ACT Composite scores for various racial-ethnic groups from 1990 to 1994. Trend information is provided for each reference group represented by 500 or more ACT-tested graduates each year. Over the five-year period, the average composite score has improved .2 of a scale score. The largest changes in scale scores have occurred for Caucasian and American Indian/Alaskan Native, ethnic groups. Average scores for other groups have been relatively stable.

Table 7
Trends in Average ACT Composite Scores*

National Reference Group	N	Composite
All Graduates		
1990	817096	20.6
1991	796983	20.6
1992	832217	20.6
1993	875603	20.7
1994	891714	20.8
Afro-American/Black		
1990	71197	17.0
1991	72681	17.0
1992	75356	17.0
1993	80401	17.1
1994	81806	17.0
American Indian/Alaskan Native		
1990	9101	18.0
1991	9358	18.2
1992	9784	18.1
1993	10384	18.4
1994	11026	18.5
Caucasian		
1990	605361	21.2
1991	588060	21.3
1992	604469	21.3
1993	625242	21.4
1994	623366	21.4

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Table 7
Trends in Average ACT Composite Scores*

National Reference Group	N	Composite
Mexican American/Chicano		
1990	22806	18.3
1991	23837	18.4
1992	26163	18.4
1993	27713	18.5
1994	29558	18.4
Asian American/Pacific Islander		
1990	19081	21.7
1991	20854	21.6
1992	22771	21.6
1993	24754	21.7
1994	26168	21.7
Puerto Rican/Cuban/Other Hispanic		
1990	10669	19.3
1991	11135	19.3
1992	13013	19.3
1993	13894	19.3
1994	15119	19.3

*All average scores are on the scale for the Enhanced ACT Assessment. Annual national trends in ACT scores beginning with 1969-70 are available on request.